

Nagarjuna Series No. 2

**ECONOMIC PLANNING
FOR
500 MILLIONS**

By the same author

TO PHILLIP SOBER

A Guide to the Communal Problem in India.

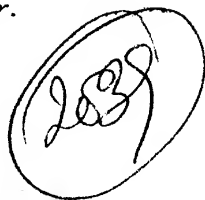
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ECONOMIC PLANNING FOR 500 MILLIONS

By

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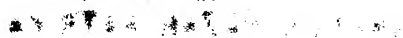


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AUTHOR'S PREFACE

In his recent work 'A Guide to the Communal Problem in India', while exploring economic programme for a solution of the communal question, the author found himself on the fringe of a vast and fascinating subject. Reflection showed that a wise and comprehensive economic programme—or plan, to use the current phraseology—earnestly pursued would be an effective solvent of communal ills. There was, however, no space in that work for a full elucidation of this subject and it seemed necessary to follow it up by a self-contained exposition of a correct economic plan for India. Hence this supplementary tract.

But the book is more than a supplement. A study such as this is appropriate at the time in its own right. Never was the need for clear thinking about an economic programme for India greater. Famine stalks the land and demobilisation throws men on the scrap heap. They bring vital issues to light. We are sharply reminded of unfulfilled needs and idle resources. There is a sense of national urgency and even the Government now mouths bold phrases about an economic plan for the country. Its plan, however, is only a disjointed patchwork which can do us no good. The Indian people must know the essentials of a correct plan. This book attempts to

supply such essentials in a brief compass as simply as practicable.

This book like its predecessor is a result of co-operative enterprise and the author gladly acknowledges the immense help his young associates have given him. Together they mark the beginning of a series of sociological studies with special reference to India. Clearly such a series cannot be handled by one man. But as continuity of ideas has to be maintained it conveniently goes under one authorship. 'Nagarjuna' is an old Buddhist name symbolical of detached but realistic thought. This series of which the keynote is reason is aptly named after him.

Patna,

April 2, 1946.

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CHAPTER I

HOW THE IDEA AROSE

ECONOMIC planning seems to have passed out of the realm of controversy and is rapidly becoming an ideology. The best proof of this is its acceptance by the Government in India. Indian bureaucracy has been always ruled by antiquated dogmas. It clung to the Manchester School of free trade when it had been abandoned by all civilized countries. It thought the only legitimate function of the state was law and order when state intervention to stop the disintegration of Indian life was urgently needed. If, therefore, post-war plans are being hatched in the mysterious secrecy of the imperial secretariat, the idea of planning must have so far won its way as to have already become a dogma.

It is precisely at this stage when the idea seems to have conquered the average mind and is in the process of solidifying into a prejudice that attention must be called sharply and clearly to its implications. Economic

planning is a vast and costly social experiment and mistakes must be disastrous. Conversely, if correctly pursued, it is potent of immense good. We must, therefore, take our steps with deliberation.

Economic planning is no single, comprehensive and clear-cut programme. Men urge it for a variety of motives. The commonest and the haziest motive is betrayed in the phrase "post-war reconstruction". We reconstruct what existed at one time. The war has directly damaged the industrial structure of several countries. Plants and buildings have been destroyed, mines flooded, cultivated lands scorched. These must be rebuilt and restored. Workers must be re-drafted to peacetime vocations. Demobilised soldiers must be restored to their old trades. Societies had worked to the single aim of winning the war. Their cyclopean energy must be now used to effect a transition to the old conditions quickly and successfully.

This is a tremendous task and of great meaning to the advanced industrial countries. The 2½ million soldiers in India, however, cannot be restored to old trades. They had no old trades and came from the vast reserve of unemployed and underemployed peasantry. The subsidiary war workers were also drafted from this same reserve. Indian industries never suffered direct damage from war. They had been producing consumers'

goods and during the war produced more consumers' goods. That these goods were used for military purposes is beside the point. Except for the usual repairs that had to wait during the war there is no technical reconstruction of industries required in India.

The phrase "post-war reconstruction" is, therefore, an irrelevant cry.

Nor is it an adequate slogan even for the advanced industrial countries of the west. England restored to the pre-war state will not be an earthly paradise. In 1939 when British production was the highest during the preceding ten years, England had over one million unemployed. In the same year one-third of the British people were nutritionally below the minimum standard of physical health. Clothing and housing conditions were equally unsatisfactory. Yet in 1938 the net national income of Great Britain was £4,490 millions or roughly Rs. 1,300 per head for the year. This would be 20 times the income per head in India. Evidently something was seriously wrong somewhere.

The U.S.A. with a much larger income was in no better plight. In the last pre-war year, of 20 million urban houses 5·7 millions were below standard lacking bath and proper repairs. Of 7·7 million rural non-farm houses, 4·9 millions were below standard. Only a quarter of the American people had good diet. About one-third had fair diet and

the rest had diet nutritionally below standard. Of the first 2 million men of draft age, 9 million or about half were mentally or physically unfit for army jobs. To crown all a staggering total of $8\frac{1}{2}$ million people were without jobs.

Great Britain and the U.S.A. are typically advanced industrial countries of the capitalist order. Their economy has distinct features. In the first place farms, factories, mines and forests—usually called means of production—are in private ownership. These private owners are not obliged to use them for any socially determined end. They have a choice of using or abusing them and also of keeping them out of use. This is a tremendous power, for production can be carried on only at their bidding. This minority of owner class acting in chaotic disregard of each other and often at cross-purposes decides by its various and contradictory pulls what shall be produced, in what quantities and where. The sole discoverable motive of the owners which induces them to put the means of production at the disposal of society is a desire to extract the maximum money reward to themselves.

The private ownership of the means of production is reinforced by property laws guaranteeing freedom of inheritance, gift, sale and mortgage. To protect the proprietors penal laws have been devised more stringent than to protect even the person.

Against the minority of the owning class holding society in hostage is the vast mass of disfranchised and propertyless proletariat, the workers. The workers have nothing but their labour power to sell. In the game of money-making the workers are the weakest party.

The owner produces for a market. The worker sells labour power in the market. This is significant. Market does not mean any determinate body of human beings. The cotton grower in the U.S.A. knows very little as to who would purchase the cotton and who would weave the cloth. He knows, however, that his cotton will be taken over by a merchant and there the matter ends. The worker also does not know for whose use he is fashioning the cloth. He knows only that the mills periodically send out cloth and give him employment.

The property owners and the proletariat with their various grades combine to produce a commodity. Each charges a fee which is variously called rent, interest, profit and wages. There is more or less freedom of market for each and each tends to get a reward that approximates the average for his class. For, if one gets more than this average reward, others of his class are attracted to the trade to take advantage of it, and as supply rises the rewards are again depressed to the average. If anybody is given a reward less than the average he has the freedom to leave the job and

cause a scarcity of supply raising the level of rewards.

This is the celebrated law of equilibrium of rent, wages, profit and interest. These four categories form the cost of production. The commodity must sell at least at the cost of production or there will be loss and production will be curtailed. The commodity is sold to those who have earned one or more of the rewards of rent, profit, interest and wages. The recipients of the reward have the freedom to purchase and they provide the demand for the commodities. The commodity is supplied at the cost of production. The total cost of production and the total money offer must balance. This is called the equilibrium of supply and demand.

In actual fact the freedom of market is very much restricted and the rewards of the factors of production relative to each other are very much the result of grab. Be that as it may, the theoretical system of free and competitive capitalism is greatly applauded by economists. The virtues claimed for it are that it gives the consumer freedom of choice and production is subservient to his command; that it rewards everybody according to his contribution to production; that it maximises production in all lines—for if production in any line is short, the scarce supply will result in higher prices and higher rewards for factors of production inducing more of them to come to the trade until returns from it are equal to the average.

It is surprising, however, how blind one can be if theory based on assumptions are not tested by actual order of things. What the theory of free and competitive capitalism forecasts does not come true. This is clear to the layest observers although the economist befogged by his theory fails to notice it. In the first place production has not been maximised as the economists assure us. It is a patent fact that factories and mines are not worked to their full capacity even during prosperous years. There is a vast reserve of "involuntary" unemployment. In England in 1938 over a million people anxious to work at the existing wage failed to find work. In the U.S.A. such people were 8½ millions. This hard core of unemployment is growing and is a permanent phase.

Secondly, at intervals the human ant-hill seems to be paralysed and work stops. Unemployment increases, factories lie idle until something gives a shock to the ant-hill and it starts into activity again. The phenomena are called by economists "booms and slumps".

In the third place it is not true that at least the resources that are actually employed are producing the right goods and services in the right quantities and at right places and in right ways. Lord Keynes would have us believe that it is so. Probably it is true that free capitalist production does tend to maximise the return to the owners of means of production. It is also true that the producer tends

to satisfy the demands of those who would buy the commodities and services, *i.e.*, of those who have "effective demand" backed by "purchasing power". But in each case it is the transient demand of the unforeseeing consumer with only present needs to fulfil that enables the producer to produce for the maximum profit. To meet these two ends labour is bought in the cheapest market; women, children and weaklings may be employed if they can accept low enough wage; for these ends there is allowed unrestrained use of the future resources of the community; careless destruction of forests; reckless draining of oil-fields; even the destructive exhaustion of the soil itself. The amenity, the beauty, even the health of the country will be sacrificed. And more liquor will be produced than milk; more gaming establishments and brothels than health homes and culture parks. In fact nobody has intended the results that the average behaviour produces. The chaotic millions have willed separately for maximum reward and each lives by guessing the average behaviour of all. Society geared to no end or only to contradictory ends cannot be expected to produce desirable results.

Fourthly, it is not true that free capitalism leads to maximum satisfaction of wants. This would be clear from the distribution of incomes in Great Britain which is typical of capitalist countries.

Distribution of personal income in Great Britain in 1929.

(Colin Clark—*"National Income and Outlay."*)

	Number of persons in thousands.	Total income. (£ Millions.)
Income over £10,000 . . .	10	228
£2,000 to £10,000	100	388
£1,000 to £2,000	195	235
£500 to £1,000	481	309
£250 to £500	1,249	402
£125 to £250	5,827	1,009
Under £125	11,800	1,170
Total . . .	19,652	3,741

Incomes up to £250 which characterise 17,627,000 earners, *i.e.*, about 90 per cent of all the earners would be all consumed in providing for the bare physical needs of the people. Incomes above £250, however, would be spent on less pressing needs. If some of the higher incomes could be redistributed to lower income groups, they would have satisfied more pressing wants. Gross inequality of incomes negatives the claim that free capitalism leads to maximum satisfaction of wants.

The inequality has other results. The most important is the tendency of the higher income groups to save helplessly. Non-spending of the incomes leads to a chronic deficiency in effective demand, fall in prices, curtailing production, unemployment, further decline in purchasing power and further unemployment. Capitalism tends to organise scarcity unless the savings could be employed on purchase of capital goods. But when a country has all the factories, rail-roads and ship-yards, as advanced industrial countries have, savings cannot be transformed into capital goods. The result is that the enormous saving only depresses prices unless it can be sent abroad, or be wasted by war. In the U.S.A. in 1935 savings amounted to \$14,000 millions. The entire American automobile industry has an investment of only \$2,000 millions or one-seventh of the total savings of one year. The entire Tennessee Valley development spread over seven years with its several huge dams and hydro-electric stations, new roads, towns, transmission lines and new factories could use up only a capital of \$1,000 millions. How can the colossal savings be spent !

This saving accumulated almost helplessly is itself a result of unequal incomes. The inequality of incomes follows from inequality of properties. The 90 per cent of the wage-earners having little property have very low incomes. The 10 per cent of property holders in Great Britain took 34·5 per cent

of the national income as their share, 25·4 per cent in profit and interest and 9·1 per cent in rent. The inequality in properties persists and as big fish eat up little fish, properties tend to concentrate in fewer hands leading to further inequality.

34·5 per cent of national wealth accruing from no toil but from mere ownership of society's resources by private individuals is in all conscience indefensible. The right to be idle and to live on other's labour cannot be sustained and is the main target of socialist attack. Not that the small minority of idlers cannot be maintained by the labour of others. Children and old people are so maintained. If the 10 per cent people had only as much as they could spend society would not be very poorly off. It is the heavy return on the properties that causes trouble.

In the feudal days the lord took away almost half of the national produce which was mainly agricultural. But the lord had his retainers who spent for him and when the grains were likely to be spoilt there were charities and public works over which they were employed. Capitalism understands disposal of grains only in the market and has no means of using up the surplus.

These are the major evils of capitalism. Those who have noticed the evils demand planning of the social economy to avoid these evils. The evils flow from the fact that there is private ownership of the means of production, that there is possibility of unearned income and that the owners of the means

of production have no aims other than profit, no knowledge of the social needs and resources and no interest in equating the resources to those needs.

Planning for plenty is inconsistent with these principles.

Hence the third approach to planning, namely, socialistic. Indeed it is the socialistic Five-Year Plans of the Soviet Union that gave currency to the idea of economic planning. For capitalism has never tried to plan comprehensively and when it did try as in the U.S.A. under President Roosevelt and in Germany and Italy under the Fascists it failed to achieve the ends of planning.

The Soviet planners aim at planned production for community consumption. They do not leave decisions to produce in the hands of private owners. It is an expert body, the Gosplan (the planning commission), that directs the national economy. The planners are interested in plenty and not in profit. The result of the Soviet planning has been striking. Between 1928 and 1940 the national income rose from 25 billion roubles to 126 billion roubles or five-fold. In 1930 unemployment was declared abolished. The following figures, in however higgledy-piggledy way they come to us, are revealing of the magnitude of the transformation. Mortality reduced by half since Czarist days; 38,000,000 children at school; 75 per cent of the ploughing and 50 per cent of the sowing

mechanised; 12,000 women engaged in various scientific research; others distinguished in flying or attaining to the Stockholm Ministership or the Presidency of a Soviet Republic; 166,000,000 books in libraries; a newspaper circulation of 37,500,000 a day; over 100,000,000 copies of Chekhov, Turgenev, Gorki, Pushkin and Tolstoi; 2,000,000 copies of Dickens in 14 languages; a total sale of books greater than that in Great Britain, France and Germany put together; summer camps for 14,000,000 children; scientific achievement in agriculture (Vernalisation, soil and world wheat investigations, and the Peru potato discoveries, for instance), in utilising coal without mining, in across-the-pole-to-California flying, in stimulation of the workers in trade schools and in care for their health, alongside triumph in drama, ballet, film and fiction. An official table shows Russia first in European production of oils, iron ore, highgrade steel, mechanical and agricultural engineering; of railway rolling stock and of tractors and lorries; and only second in development of electrical energy, and in the production of iron, steel and rolled steel. Yet at the outbreak of the last war, eighty or ninety per cent of the people were illiterate and it is still possible to speak with men and women whose grandparents and even parents were serfs.

And this development proceeded not as a so-called phase of expanding industry but with fore-

sight even while capitalism over the rest of the world suffered a veritable demise after the crisis of 1929.

The Soviet Union is an instance of planned production for community consumption. There is no other proper model of a planned economy and it is the Soviet Five-Year Plan that has brought in the idea of economic planning to stay.

CHAPTER II

ESSENTIALS OF ECONOMIC PLANNING

THE liberal democracy of the west was concerned with keeping as large a sphere out of state control as possible. The American constitution illustrates this most grotesquely. The theory was that the individual was the sovereign unit. If the individual is free to will, there is no guarantee that each would will alike. If one willed light and the other willed darkness—both the wills will be frustrated. In actual fact there was not the contradiction of wills which would follow from formal freedom and equality of all. The wills of the majority were paralysed by ignorance or by lack of organisation. Wills of a minority of propertied classes were effective. This minority controlled the army, the navy, the air force, the courts and the police. It controlled the church and the school. Were it not so society—necessarily of the capitalist type—could not have functioned as a unit.

Freedom and equality were, therefore, never universal. It was freedom and equality of a class. Even this class freedom, however, led to no coordinate goal. Every member of the class worked for maximum reward. Yet some gained and others lost and none got exactly what he willed. The

individual romanticized this uncertainty and attributed the result to luck, to foresight, to enterprise, to skill and what not. In fact there was no mystery at all. It was only the statistical average of each separate behaviour.

Suppose you are a farmer. You want to get the maximum money value out of your farming. You will grow as much grain as possible. You will store the grains in expectation of selling it when the price is the highest. If every farmer worked on these sound principles, the crisis of 1929 must be repeated.

It is not due to a mistaken estimate of the total demand. Suppose you know that all your customers will be from the town where you have your vegetable shop. The railways will give you figures to indicate the extent of import of vegetables into the town. A survey of areas under market gardening would give you the estimated yield of local produce of vegetables. By these means you can know with as much certainty as desired the local demand. By the inertia of large numbers the total demand will be also more or less stable. If you are the only dealer in vegetables you will indent for the minimum stock and at the end of the day find it sold out. If instead there were a large number of such dealers none could be certain as to which portion of the demand would be diverted to his shop. It may be all or nothing. The dealers must, therefore, store a maximum supply each but content themselves with varying off-take. Necessarily a large stock of unsold

vegetables will perish daily and useful production has been sacrificed to uncertainty. Even advertisement will not affect the position for every dealer advertising his ware would leave the customer as undecided as he would be if there were no advertisement at all. Vast sums over advertisements would be wasted for nothing.

Thus we have it that equal and free individual wills cannot produce a positive society. However informed these wills may be, however they may be guided by maps and charts and statistics, the uncertainty of competition would never make for complete success of the planning.

The first essential feature of a planned society is, therefore, supersession of equality and freedom of action by individuals and groups. Instead of millions of chaotic and mutually stultifying wills we must have a supreme social will. Society will have an organic life. This is the relentless implication of planning. Now if in place of contradictory individual aims integrated social aims are substituted the whole aspect of things changes. The human society unlike the evanescent individual is immortal. It will not behave in the present in such a way as to jeopardise its future life and happiness. It will not drain the oil wells and destroy the forests for its life is not going to round up at the petty three score years and ten. Instead of the individual pre-occupation with the temporary,

it will concern itself with unending life. Planning implies seeing ahead.

Again the planned society must have a single and integrated aim. It will not make the economy a plaything in the hands either of the farmer, the industrialist, the worker, the soldier, the consumer or more than one of these groups. It will not devote the resources of the country only to yield profits to an idle class or even wages to an active working class. Society is made up of children, of the aged, the sick, the disabled, and of heroes as well as of common men. Each of these categories must be helped to grow in harmony. The worker must work but the child and the aged and the sick must have a right to live even without toiling to produce food and clothing for society.

The only rational aim of such a society would be from each according to his capacity to each according to his need. This principle rejects the unreal contradiction of equality and inequality between individuals. Instead it makes them a totality where each lives by sustaining the other. Society will no more be the arena of conflicting atomistic wills but would be like a family which has a common inspiration and where members are graded according to their needs.

The third essential feature of a planned economy is the social control of the means of production to be employed to ensure production according to plan. This control may be independent of ownership. Such

things have happened during the Nazi and Fascist regimes even in peace and in all countries during war. It matters little whether an enterprise is a private concern. If it fails to work up to the plan it may be taken over by the society to ensure conformity with the plan. The American Government took over several enterprises which either on account of bad management or for other reasons were falling behind the schedule in war-production. Everywhere outside the Soviet Union such control of the means of production by society has been fitful and for temporary purposes. A planned economy has aims as integrated and overpowering as waging of war and the social control should be a normal phenomenon. This robs ownership of its essence and the socialists take the logical step and vest ownership of the means of production in the state.

Fourthly, planning involves balancing needs to the possibilities of production. What needs shall be fulfilled will be naturally an arbitrary decision depending on the sense of right at the moment. The needs may be not only for a provision of adequate food, clothing and shelter. The social needs may be also to ensure leisure and varieties of considerations like war and blockade will exert their weight. In order that these needs may be satisfied there shall be a complete survey of raw materials, power resources and employable population and so forth. The needs and resources will be correlated continuously

by a body of experts acting under the organised authority of the state. There must be a planning body like the Gosplan of the Soviets.

Balancing of needs to the possibilities of production involves decision as to what shall be produced, where and how. The decision as we have seen will depend on a number of considerations. But when the decision has been taken it will be necessary to see that the plan is not upset by unforeseen contingencies. Under capitalism such contingencies are numerous. The majority are artificially generated. There are such things as business confidence, currency scares, panics, economic blizzards and other intangible contingencies that may upset production. We have referred to the economic booms and slumps and to periodical unemployment. Planned economy will be completely free from such contingencies.

There will be, however, other contingencies which are unavoidable in any economy. Thus crops may fail and raw materials and food be short of the planned optimum. There may be earthquakes destroying industrial plants. There may be epidemics killing workers and slowing down production. Exports and imports may be affected both in quantity and price by causes beyond the frontiers of the country. Lastly, war may break out and upset all calculations.

To guard against these possibilities and to avoid what are called bottle-necks reserves of a

sufficient size must be created. The reserves must be depleted and renewed regularly to avoid waste and deterioration. Dependence on other countries must be reduced to the minimum by measures of self-sufficiency and reserves of commodities usually imported must be built up.

Again it must be seen that commodities produced are actually consumed. This entails providing incomes enough to clear the goods. We have to arrange the distribution of the incomes in a way, and devise a tax system in a manner that there would be no lack of purchasing power which inhibits production in capitalist societies. We must decide how far things should be available for free sale, how far rationed, how far purchases should be subsidised and how far things should be offered free. Only when these latter questions are solved can planned production for community consumption be a success.

Fifthly, as the planning body must have full statistical information of resources and needs together with trends in production and consumption, scientific and abundant use of statistics will be a necessary feature of the planned society. This is more so because a planned society cannot accept price and cost as its guide for production. Planning of society is not unlike planning of a single department like the Railways. The difference is that all industries in a planned society are branches of a common concern and not separate concerns. There

can be a rough calculation of costs and profits for each branch but basically the products of the various industries will be joint products of the same concern and allocation of cost of production to each will be in fact arbitrary. The only guide when the illusory precision of money costs and prices has vanished is statistics and a direct judgment on the materials before the society. The process is something like this.

Suppose :

- (1) resources $a+b+c$ yield products $x+y+z$.
- (2) resources $2a+3b+4c$ yield products $x+2y+3z$.
- (3) resources $3a+2b+5c$ yield products $2x+3y+4z$.

We are to decide which of the combinations of resources is the cheapest. No logical answer can be given for neither are the combinations of resources commensurable between themselves nor are the combinations of products so commensurable. In such cases direct value judgment is involved. Put in non-mathematical form and with the minimum number of considerations it is whether we should choose more labour and less capital to produce handloom cloth, or less labour and more capital to produce mill cloth. Indeed it is more correct to put the alternatives thus. Shall we use more labour and less capital to produce butter or less labour and more capital to produce guns ? When the alternative is put in

this form, it is at once clear that production planned directly must consider the real costs and sacrifices. At present the criterion is that products involving less money cost should be preferred to products involving more. But less money cost may be artificially achieved by making large numbers of widows and orphans toil long hours by the hand at low wages; while higher money cost may be a result of a small number of adults working for a few hours, manipulating switches of a complicated machine, getting higher wages and necessitating higher return on capital. Money cost conceals many things and lumps together factors of production which are absolutely non-homogeneous. Thus skilled labour and capital are both valued in terms of money and rendered homogeneous. In fact they are not so. The statistical information with full details will enable authorities to judge costs directly. Even when the factors *a*, *b*, *c*, etc., are equated they will be equated with eyes open.

Lastly, planned economy must adopt the cult of science and use it to minister to human needs openly and without inhibition. We know how science harnessed to industry has relieved toil, made mass production of things possible and has enabled production to proceed at a scale that could never be done when men relied only on human and animal muscles. Taming cascades to generate electricity, making tractors and turbines, and

fashioning locomotives would never have been possible by hand. Science today serves sectional aims. If it enables the capitalist to make a profit it is used. If it interferes with such prospects it is put in the cold storage. Already in the capitalist world there are appeals to call a holiday in science. Bernard Shaw tells the story of an engineer who discovered unbreakable glass. His patent was bought by a glass manufacturer not for exploitation but to ensure that it could not be exploited in the manufacture of glass. The plea was that, if glass did not break, the industry after supplying all the needs for glass utensils will have to close down for want of demand. Bernard Shaw has, therefore, picturesquely called the capitalist economy "breakages, limited". This abuse of scientific inventions in a planned society will be unthinkable.

In the ensuing chapters the various essentials of planning will be considered in relation to India.

CHAPTER III

NEED FOR AN INTEGRATED SOCIAL WILL

THE literature on planning in India takes no note of the basic necessity of an integrated social will for a planned economy. No plan can succeed if hostile groups are ranged against each other. No plan can succeed if opposition is so complete that each Government will annul the acts of the preceding one. No plan will succeed unless there is coordination of all elements.

In India the first major opposition is the contradiction of imperialism *versus* nationalism. India is the depressed pole of an axis the other pole of which is an industrially dominant imperialism. This is not the place to analyse why advanced industrial countries under capitalism can thrive only at the cost of the degradation of agricultural and raw material producing countries. The term of trade is always against the non-industrial country. Control of India is, therefore, a necessary condition of England's industrial advance. India cannot be allowed to industrialise herself in competition with England. Yet unless India industrialises there is no meaning in planning for plenty. An agricultural country of small peasant farms can never achieve plenty and will always wallow in poverty.

The special responsibility of the Governor-General for the financial stability and credit of India under section 12(1)(b) of the Government of India Act, 1935, and for prevention of action which would subject goods of United Kingdom or Burmese origin imported into India to discriminatory or penal treatment under section 12(1)(f) of the Government of India Act together with the provisions contained in sections 111 to 120 of the Act in respect of commercial safeguards is a visible and concrete pointer to the unbridgeable gulf between the welfare of India and the exploiting nature of imperialism. The contradiction will inhibit planning more particularly because England controlling the state apparatus can paralyse all non-official efforts for economic redemption of India.

The gains to England from the control of India are enormous. Directly India bears the cost of maintaining an imperial army for the safety of British trade and investment in India and the Far East. The army budget accounts for almost half the revenue of the Central Government. Then there is the large number of Britishers in civil and military employ drawing emoluments practically the highest in the world. Thirdly, there is the non-official Britisher engaged in trade and commerce, in banking, shipping and industries and to some extent in the professions. The non-official Britisher is the more important wing of the Empire. The

entire foreign trade of India is practically in British hands, and almost all the coastal trade. Our entire railway system is built out of British money and so is the irrigation system of the north-west including the Sukkur barrage. Almost the entire plantation industry, namely, tea, coffee and indigo, is British. Coal-mining is overwhelmingly British and copper-mining completely so. Even in iron and steel the Steel Corporation of Bengal is not unimportant. The major portion of internal banking and insurance is British, and exchange banking is entirely so. In heavy chemicals the Imperial Chemicals hold the monopoly. Almost all engineering firms are British. Jute industry is overwhelmingly Scottish. All told even excluding the railways and the canals, 70 per cent of the organised industry in India is British.

British gains from industry in India are thus summed up by H. N. Brailsford in his brilliant book 'Property or Peace?' at page 221:

"It is usually estimated that £600 to £700 millions of British capital are invested in India. Part of this capital is sunk in industries which in favourable years yield fabulous profits. Coal mines have been known to pay 100 to 120 per cent on a daily wage of 8d. Out of 51 jute mills, 32 paid as much 100 per cent or more in one or more years between 1918 and 1927; 29 never paid less than 20 per cent and 10 never paid less than 40 per cent.

During the early post-war years the profits of these jute mills ranged from six to eight times their total wages bill. For every £12 they paid in wages to their Indian workers, they remitted £100 in profits to their shareholders in Scotland."

This is the gain from industries. Then there is the profit derived from a compulsive and monopolistic trade, with terms of trade heavily against India. There is the gain on export of capital and in issuance of bonds. Lenin calculates that the colonial borrower rarely gets more than 80 per cent of the value of the loan nominally advanced to him, the rest being accounted for by heavy underwriting and other costs.

This is what India meant to England even in the days of peace and relative free trade. During the war she meant all the difference between England's life and death. Her hungry peasantry provided 2½ millions of soldiers and her underfed population spared food and raw materials for the Middle East and other theatres of war to the tune of over Rs. 1,700 crores. With autarchy gaining in popularity and the war having wiped out all the foreign assets of England and transforming her overnight from a creditor country to a country irretrievably in debt to the dominions, to India and to the U.S.A. England's economy is seriously shaken. In order that England might keep up her pre-war standard of life and meet her liabilities English production must be trebled. To this end England must expand

her imports and exports enormously. This can be best done if there are dependent areas which would buy English products at monopoly prices and sell to England compulsorily at dictated prices. India with its resources and population is ideal from both the points of view. England needs India desperately. She cannot allow India to industrialise in competition with herself for a self-sufficient India will neither be a good market for English goods nor a good source of raw materials. An industrialised India in the present circumstances means unemployment for the British. India has been called the brightest jewel in the British crown. Certainly it is the most precious. The admissions by the late Lord Curzon in his book 'The Place of India in the Empire' are echoed more loudly by Mr. Winston Churchill who after the upheavels caused by the war understands the economic value of India incomparably better. He was in no frivolous mood when he said, "I have not become the King's first minister to preside over the liquidation of the Empire." He was grimly earnest.

The bearing of all this on planning in India should be clear to the meanest intelligence. A plan sponsored by the British Government can be only a plan hostile to India. Successful economic planning is inconsistent with British occupation of our land. Political emancipation is the first step to India's prosperity. Without freedom our plans are mere day dreams.

Only a little less important is the second great cleavage in India's solidarity—the artificial division of India into British India and India of the princes. The divisions correspond to no real division in character, capacity and aptitude of the peoples concerned. India is culturally one country. Nor are the divisions homogeneous and compact. The states range from territories as large as Hyderabad and Kashmir to those as small as the petty states of Kathiawar and the Eastern Agency. There are states with resources and populations large enough to have full-fledged administrative apparatus of legislatures, ministries, courts, police and army, such as Hyderabad and Mysore. There are states so poor and resourceless that they have not even a police sub-inspector. These states varying in resources and development have no common organisation. Each is dealt with separately by the Crown representative.

The provinces on the other hand are more or less homogeneous, are large enough to have an adequate state apparatus and are parts of a common centre.

The more serious difficulty arises from the fact that the states and the provinces are no compact blocks. They are interlaced together and rivers and mountains ignore the numerous frontiers and railways and roads cut them criss-cross.

The artificial mosaics of numerous states and provinces are wholly unreal. India is a geographical and geological unit and her development must be

co-ordinate. The only advantage of the petty divisions is that the states remain a backwater of reaction and having shut out the larger influences that come from a common polity they have kept the people stunted in servility and ignorance. They are the handiest tool of the British imperialism as but for these islands of absolutism the popular storm sweeping over India would have swept the British clean out of the country.

Now planning should embrace as wide an area as possible before it can be successful. The Soviet Union striding from the Atlantic to the Pacific can plan better and with greater certainty than the small islands of Great Britain. The reason is not far to seek. Geological resources are distributed over the earth very haphazardly. If each small area has to live on its own resources, Sind and Baluchistan would have only deserts and barren rocks while the sparsely populated division of Chota Nagpur will have concentrated mineral wealth. As we widen the area of planning we attain greater geological balance. In a united India Sind can derive as much advantage from the mineral wealth of Chota Nagpur as the latter from the benefits of the Sind canals. The specialised resources of the Punjab in producing wheat would not be employed fully if the Punjab were only to feed herself, and Bombay cotton would not be needed in that quantity if Bombay alone were to be clothed. If each small division tries to produce everything for its own

requirements it would end by causing either glut or medieval penury.

For a successful planning, therefore, the isolation of the states and provinces must go and they must forge a common organ to direct planned development of all the territories of India. The river systems require regional planning irrespective of states and provinces. Hydro-electricity can be used as far as the transmission lines can take the current. All these considerations point to merging of all India into a single unit.

The contradictions of imperialism and nationalism and of British India and India of the princes are established facts. There are, however, other cleavages not yet in existence that we are foolishly fashioning through our misguided politics. The various zonal schemes of the division of India, and, the most sinister of them all, Pakistan of Muslim League dreams, are all conceived in malice. The economic disadvantages of Pakistan have been pointed out by several authors, and we need not elaborate them. We have hinted at them while discussing the division of India into British and Indian Indias. Progressive thought in all countries is moving towards a wider and wider unity. The picturesque mosaics of petty states now attract only abnormal minds. Science is reducing the world into one household. To fly apart for imaginary fears is to break a healthy co-operative society of peace and plenty into sick homes and isolation quarantine.

Indeed even the divisions of Hindustan and Pakistan will have internal cleavages of purpose, and planning even on small scale will be frustrated. Thus Pakistan based on religion will be meaningless if Moslems and non-Moslems enjoy equal rights and privileges. Such equality is possible only if religion is ignored. Pakistan will inevitably mean rights of citizenship graded according to religion. The discrimination between Muslims and non-Muslims, and non-Muslims if Mr. Jinnah's scheme of Pakistan could be accepted would be quite as numerous in Pakistan as Muslims, will make common planning impossible. The grand strategy of planned economy will have been broken over petty bickerings that inevitably dwarf thought and personality. Religious theocracies in the modern world are a mischievous drag on prosperity and happiness.

Pakistan is only the accentuated form of the disease of communalism in our country. Communal electorate fostered by the British to serve Imperial ends has made common aspiration in India difficult. The man elected from Muslim constituencies must be a pucca Muslim, extreme and fanatic. The Hindu elected from Hindu constituencies will tend to be a narrow-minded Hindu. The task of progressive parties like the Congress becomes difficult and when the fanatical communalists meet in the assemblies they agree only to differ.

Communal electorate has been re-inforced by fixing percentages in jobs for the communities,

while scholarships and uplift schemes directed to special communities keep the distinction alive.

In the circumstances communalism prevents the emergence of a unity of purpose which is essential for planning. Other cleavages like economic alignments and classes will be considered in another context. Suffice it to say that so long as these divisions in purpose persist, our scheme of economic planning will be a mere utopia.

It has been necessary to emphasise these cleavages as in our enthusiasm for planning we forget this dark back-ground. In an expansive mood we feel that a scheme logically perfect is a scheme socially feasible. The social impediments must be underlined. If we mean to achieve plenty and peace, we must overcome these divisions.

CHAPTER IV

CAPACITY AND NEED

From each according to his capacity to each according to his need. We need not fight shy of this communist ideal. In a planned society no other principle is appropriate. Arguments against inequality based on the accident of race, religion, birth and pedigree are legion. The common man cannot be expected to support such distinctions. This is the greatest practical argument against it. Nor can equality be guaranteed in any sense other than in the sense of equality of opportunity for all. Men are different in looks and colours and in health and disease, in strength and aptitude and have different wants and desires. There is no getting away from these things. The dualism must be, therefore, overcome as in a family. Every member should be able to develop himself and appropriate out of the common pool of well-being what he needs most.

The bearing of this principle in India is clear. There will be no discrimination based on race, religion, language, territory and nationality. There will be no question of rating the well-being of a Hindu higher than that of a Muslim and vice-versa. But inequalities based on demonstrable

physical and mental differences will have to be taken note of. Thus the young, the old and the sick are demonstrably incapable of working for the common well-being, and, as demonstrably, they have distinct needs to be met out of the common pool. The principle demands a census of the nation's children, a law to prohibit their employment, and a scheme to find suitable diet, schools, books and teachers for them. Similarly the aged, while not being required to work, must be guaranteed an interesting and care-free old age. To this end we must have old-age pensions, rest homes and sanatoriums. For the sick, similarly, there must be provision for sickness benefits and health services.

We thus find ourselves on the fringe of subjects like social insurance, health, education which are generally not considered as part of economic planning. These schemes, however, make a demand on material resources which are certainly economic. We shall have to touch on these subjects in other contexts also. Suffice it to remark here that economic planning is no mere industrialisation and adding to the output of goods. It touches other social problems and demands augmenting of services for the health, education and entertainment of the people. There is no economic planning that does not involve wide social planning.

Again, while there is no evidence that the different peoples in India are inherently unequal in their physical and mental capacities, while

there is no evidence to support the distinction between martial and non-martial peoples, there are certainly groups which, as a result of history, have, at least temporarily, become more backward than the others. Thus the backward areas and tribes like Mundas, Oraons, Bhils and Santals cannot for some years provide for more than an unskilled labour force. But for this reason their social life must not remain poor and cheerless. Such people will have a lighter burden of taxation but will get more social resources diverted to their education, health and uplift.

Thirdly a planned society is not bound to respect the specialisation that would have followed if free capitalism were allowed to work itself out. There may be some economy in specialisation but it is ridiculous to suggest that certain areas are fit only for agriculture and country life and others for industries and town life. The wide society of peoples that make up India has a rich heritage and each part must be given chance to develop a diversified culture. Thus even while it may look economical to allow Sind and the Punjab to be producers of grain only while the peoples of Chotanagpur may be allowed to industrialise, the planning authorities would do well to look for as many opportunities for industries in the Punjab and Sind and as many opportunities for agriculture in Chotanag-

pur as possible. In other words, planning on the principle enunciated in this chapter demands the greatest degree of regional self-sufficiency. Fortunately for India regional self-sufficiency is very largely possible. Thus the plains of Hindustan which are rich agricultural tracts can harness the energy of the rivers at their headwaters and hydroelectricity may help development of cottage as well as large scale industries. The Ganges-Brahmaputra tract, the Indus basin, the Damodar basin, the Sone basin, the areas of the western ghats and the southern hills are all capable of regional development on the lines of the Tennessee Valley in the U.S.A. Such development of industries and agriculture in balance corrects the isolation of an agrarian culture producing village idiots and the rush of industrial civilization producing nervous automatons. It carries the amenities of urban life into the wide spaces of the country.

It is needless to point out that special treatment for children, the aged and the sick ; for the backward areas and classes ; together with the need for a diversified economic life and the maximum degree of regional development and self-sufficiency demand a careful survey of all factors involved. In the chapter on statistics this point will be further elucidated.

CHAPTER V

SOCIAL CONTROL OF THE MEANS OF PRODUCTION

Acute controversy has raged round the necessity or otherwise of private ownership of the means of production. There is an old saying that private property turns sand into gold and tradition is heavily weighted in favour of private ownership of the means of production. The necessary goading power of profit has been vastly applauded.

We are, however, concerned not so much with ownership of the means of production as with its control. Thus a Zamindar in Bihar owns his zamindari but beyond realising rent from it does not control the exploitation of the agricultural resources. The control has passed on to the raiyats. If society decides to allow an idle class to live by social charity, for that is what rent and interest comes to, there will be no great catastrophe and planning can proceed quite all right. But the planning authorities must have the land and capital at their disposal for the purpose of exploitation.

In such matters it is better to proceed concretely than by way of theory. In the first place production depends upon a number of factors whose co-operation is essential. Most important of them

is the human factor. There is no private ownership of human beings whether to carry on allotted tasks or for managerial work and supervision. The unskilled worker, the skilled worker, the foreman, the manager and the director of a concern lend their services for wages and salaries. For in vast joint stock enterprises directors do not necessarily hold shares. Besides, there are a number of Government departments where abundant initiative and leadership is forthcoming for no other reason than because the responsibility of the official is large and because there is a watchful public opinion to applaud his devotion and condemn his slackness. The greatest leadership is called for in the army but the army general has no urge for private profit. These springs of initiative will be fully available in a planned society. Planned society will mean no regimentation of human beings. There is going to be no conscription. Only planning gives a larger field from which managers and directors can be drawn. There will be abundant facilities for training, higher degree of basic education, greater certainty for intellectuals and research workers and better education of instinct for service. The Soviet economy does not suffer from lack of managers and directors who are interested in their work. Efficiency displayed in maximising profit is not necessarily the efficiency needed by a society planning for plenty. Men with genius for organisation would

come up for service if they are given a chance and if their services are appreciated by their fellow men. To delink direction of social economy from profit-making is not going to cause set-back to production.

Of the non-human factors land is demonstrably the least affected by considerations of profit. The will and the capacity of the land-owner is irrelevant so far as the existing volume of natural resources is concerned. The headwaters of the rivers would be a perennial source of hydro-electric energy, even if all the land-owners were dead. The stock of mineral wealth will be equally independent of what the landlords feel and think. The Floud Commission, therefore, was right in its conclusion that zamindari or private ownership of land is absolutely unnecessary. In fact it may be mischievous because there is no guarantee that the landlord interested in extracting the maximum rent will allow the natural resources to be exploited for society's good.

Fortunately in British India out of 510,032,000 acres of land as much as 36 per cent is under raiyatwari tenure and Government is the direct owner of the natural resources over this area. Over the rest Zamindari and Mahalwari systems prevail. So far as the mineral, underground and water resources are concerned there would be little difficulty in the state taking over control. There is the question of compensation to landlords.

If desired landlords might still get some sort of a "malikana" for their right to these resources. Perhaps it would be desirable not to provoke either social distress or social upheaval by outright liquidation of landlordism without compensation. Their liquidation may be spread over a number of decades and there would be no difficulty in sparing a portion of the social produce for these expropriated proprietors. The expanding production would not be much strained in providing the dole. It may be convenient to regard the state as a lease-holder on payment of a certain fee to the proprietors. The fee should be just enough to cover their needs.

The surface rights both in the raiyatwari and zamindari areas have, by the growth of tenancy laws, passed to raiyats who are limited proprietors. This vast mass of agriculturists need not be expropriated. In the first place they are actually on the land and are working it. Their proprietorship is not barren or absentee. Secondly, expropriation of these small proprietors will be a social calamity and it would not be easy to find substitutes for them. Social control over these petty proprietors would be better exercised if they join their resources for collective farming. Collective or co-operative farming is an organisation of owner-producers. The system is working very well in the Soviet Union and should work well in India. Collective farming being on large scale can employ

scientific devices which are impossible for the petty holder of 2 acres. The farm management can be more easily educated into sound technique than the numerous petty peasants of to-day. The surpluses can be moved to the towns and other consuming centres much more easily than when reliance had to be placed on the small farmers bringing their little surplus to the market. Science and statistics to which we shall return later can be employed more successfully when the units are large. Collective or co-operative farming without being a violent break with the past tends to enlarge the units of operation.

British India has 94 million acres of culturable waste while India as a whole has 110 million acres. This means 18 per cent of the total area of the country. Perhaps all this is not fully available for cultivation and over some of it tenancies might have already grown. But a substantial part of it which may be not less than 10 per cent would be still available for scientific farming on a large scale under the state for purposes of demonstration and for adding to the supply of food and raw materials. Here we are not hampered by petty proprietorships. State would step in to control as it would control underground mineral and water resources.

Abolition of private property in land without interfering with the agricultural tenancies would be nothing revolutionary. It is advocated even by

orthodox capitalist economists. Yet it would release the vast natural wealth of the country for fruitful and planned exploitation.

Social control of capital is however, a subject of keen controversy. The controversy has given rise to much ignorant literature which only confuses the issue. We would avoid intellectual jugglery by examining concretely the nature of capital. Imagine the world without human beings. It would be a play-ground of elemental forces. There would be jungles and deserts and gurgling rivers and beating surfs. There would be no farms with ridges and fencing, no hydroelectric plants, no docks, ships, rail-roads, factories, plants and machines. There would be no granaries and godowns stocked with commodities, nor shops full of wares. These latter are a result of human labour and accumulation which has made the natural environment useful for our purposes. These accumulations which make the environment fruitful for production are capital.

Evidently they would not have come into being unless people had diverted their energies to produce them in preference to producing food and clothing for immediate consumption. But at any moment the accumulation is of a particular size and form. It is a result of past act. Nothing is needed in the present to keep it intact. Man's capacity to forego present consumption and willingness to do so are irrelevant except

for adding new items of capital. Old items are already a part of nature—indestructible and self-perpetuating. If the state takes away the old items of capital from the private owners it would not affect their volume in any way.

The private individual's capacity and willingness to "save" is relevant only for additions to the stock of capital. It is said that if there is expropriation of old items of capital, the individual would be in panic and his willingness to save would be sapped. There would be, therefore, no addition to capital and we would be a stagnant society. There is some force in this argument but it ignores reality as disclosed by statistics. Firstly we do not need all the existing savings for investment. It is paradoxical for frugality has been preached as a great virtue. Nonetheless modern economists have all come to the conclusion that there is too much desire to postpone consumption—resulting in falling off in demand and consequent curtailment of employment and incomes, further falling off in demand as income declines and further curtailment of employment and incomes. In advanced industrial countries like the U.S.A. saving comes to 14 per cent of the national income although 4 per cent would have been enough to maintain all the capital intact while addition to capital in fully capitalised countries will not be ordinarily more than 1 per cent per annum. The Americans would be happier if they

saved 5 per cent of their income instead of 14 per cent.

Secondly all the saving does not come from individuals. There are savings by institutions. The motives that would lead an individual to save are not the same as those of the institutions. Institutions can be ordered to save whereas individuals cannot be so easily ordered. The Colwyn Committee adopted new savings for England at £500 million of which savings from undistributed profits of enterprises amounted to £194 million. There was also saving from addition to depreciation funds and so forth. Colin Clark has computed that savings through institutions like the Post office, insurance Companies, building societies, trade unions, State and Municipal enterprises, etc. amounted to more than what would cover new investment. In 1934 he puts institutional savings at £461 million while new investment absorbed only £274 million. There is no need to rely upon the individual to save.

Thus the old arguments against taking over capital from the private owners whether by way of capital levy or death and estate duties or by direct expropriation no longer hold good. Again a planned society is not obliged to rely upon accumulation of capital or what is called 'investment' in the economists' jargon through indirect methods of individual or even institutional saving. Society can directly allocate labour and natural resources

to build railroads, factories and shipyards, in preference to producing wheat and cotton. The result of such allocation would be more capital goods and less consumer's goods and this will have been achieved without reliance on millions of individual wills.

The nationalisation of capital is going to produce no catastrophe.

But in India we are not going to adopt this principle uncompromisingly. The outcry against nationalisation and social control of capital is raised in respect of the existing volume of capital. Now the existing volume of capital in India outside the agriculturists' implements and the artisans' tools which will never be nationalised consists of capital employed in transport systems like the railways, post and telegraph and the canals. The total capital investment in these spheres is calculated at over 1000 crores. All this capital is already nationalised and the bond-holders get fixed interest. Then there is capital sunk in organised industries which are calculated at Rs. 700 to Rs. 1000 crores. Investment by Indians is barely Rs. 300 crores of this total.

Now so far as foreign capital in Indian industries is concerned there is already universal agreement in India that this capital should be controlled by the State. We may not liquidate this capital as the Soviet Union did or even as Mexico expropriated the foreign oil companies.

But we may require the foreign capital to convert itself into bonds and be content with a guaranteed interest by the State. Capital need not necessarily carry management with it. We may moderate our demands even further by requiring the management of foreign capital to agree to a limitation of profit and to supervision and guidance by the State.

The real opposition to social control of capital would be from the Indian owners of capital. As we have seen the capital provided by them is barely Rs. 300 crores. Economic planning even on the modest estimate by the Industrialists would require a capital of Rs. 10,000 crores in 15 years. The existing Rs. 300 crores of Indian capital is only 3 per cent of this volume. It is so insignificant that even if it is left almost completely in private ownership and management the success of the plan will not be affected. As a matter of fact the Industrialists themselves realise the need for State intervention in management of industries and would willingly submit to social control of capital in moderate degrees.

As for the provision of capital to finance the plan we might lay down the principle that where capital is raised by means other than voluntary individual savings nationalisation and social control would be easily conceded. As we proceed we would find that capital provided by voluntary savings of the individual would be a negligible fraction of the total capital needed.

Conditions in India are thus much more suitable for social control of the means of production than in the advanced capitalist countries of the west. The transition to social control would be achieved without much violence to vested interests for Indian vested interests are still too few in our country. .

The next question is how this social control is to be exercised. We know how control of production by private capitalist *entrepreneurs* has been hostile to the interests of society. Clearly a plan to be successful must be devised and executed for the benefit and according to the desires not of any section of the population—not even of so large a section as all the *entrepreneurs* in an industry, or as all the trade unionists in that industry, or as all the manual workers, or even as all the producers as such—but of the entire community. There is no way of ensuring that economic planning should be continuously directed to the benefit of the whole community other than by placing the control in the hands of representatives, not of any organisations of the producers, but of organisations representing the consumers which means all the citizens. In other words, the supreme direction and management can be undertaken by the Government itself, either central or local, with the assistance of advisory or consultative committees of the several categories of workers concerned in production, and, preferably, also

with the help, by way of criticism and suggestion, of specially qualified representatives of particular sets of users of the several products.

Particular organisations are interested chiefly in their own wants and desires. Their minds are filled with a sense of present requirements. They are not to be trusted to plan for the future impartially and without bias. Only a central planning authority is in a position adequately to survey the needs of the future and to make, even at the cost of the present generation, the appropriate provision which will secure, alike to the producers and to the consumers who are to follow, the conditions of an unbroken continuance of their common well-being. The planning body must be, therefore, appointed and controlled by the State. The plans framed by it should be approved by the executive organ of the State.

The planning body should be charged with the task of seeing that the plan is being executed and the planning committee must report continuously to the government on how the plan is being executed.

The planning committee which is a body of experts acting directly under the supervision of the government, therefore, will have the highest control and direction of the national economy. As for the subsidiary control, namely, management of single factories or industries, the position will not be different from what we have to-day. Only

the directors will be appointed by the planning committee and be responsible to it. Questions like the place of the trade unions in industry and of self-government in industry, etc., are subsidiary details which cannot be elaborated here.

This will be the structure of the organised industries. In the agricultural co-operatives, and in co-operatives of owner-producers, as well as in the case of single artisans the appointment of managers will not be made by the planning committee but by the members of the co-operatives and the like.

CHAPTER VI

BALANCE OF NEEDS AND RESOURCES

Most of the literature on planning is concerned with an examination of needs and resources of the country. The Bombay Plan is specially so. This is indeed the most important problem of planning and deserves careful study. An estimate of the needs depends on recipients of incomes. Under capitalism almost all income is either directly from work or from ownership of means of production. Those who do not come under either category may find no income at all. These income receivers exert their pull on production and production of goods and services is directed automatically by their demands. In a planned economy this is not possible. Planned economy produces for community consumption. It must work on the assumption that State must provide for the basic needs of the citizens. Thus it will either give the citizen work, or train him for work, or, if he is unable to do work as when he is old or sick or too young, find maintenance for him. At this rate every individual need must be considered and provided for. Of course the provision will depend on the possibilities of production and

the needs and the resources must be balanced carefully.

It is not difficult to classify human needs. Man needs food, clothing, shelter, medical care, education, travel and entertainment for his leisure. We must examine each of these needs at length. In all this we must bear in mind that ours is a population of over 400 millions to-day and in the next 15 years it would be in the neighbourhood of 500 millions. As our aim must be higher than our grasp, we should attempt a provision for 500 millions at the least.

A. Food

We may accept the minimum requirement of food per head as laid down by the Bombay Plan. According to the authors balanced diet should include:—

Cereals	... 16 oz.
Pulses	... 3 oz.
Sugar	... 2 oz.
Vegetables	... 6 oz.
Fruits	... 2 oz.
Fats and oils	... 1·5 oz.
Wholemilk	... 8 oz.
or	

Meat, fish and eggs 2·3 oz.

The energy value of this food will be 2,600 calories. Taking 200 calories as wastage in the process of cooking we should plan for an overall

diet of 2,800 calories. The balanced diet for a child will be only slightly less. In America the average civilian consumes 3,500 calories and the average soldier 4,500. In Germany industrial workers are allowed 4,000 calories. At Hotsprings Conference which met in 1943 the range adopted was

Men	... 2,500—4,500
Women	... 2,100—3,000
Children	... 1,200—3,800

We are thus not adopting any ambitious standard when we fix the requirement in calories per head at 2,800 per day. Even against this minimum standard the diet of our average Indian is inadequate. We know that the diet consists almost wholly of cereals and pulses. The other items of food are conspicuous by their absence. The Indian population of 1941 reduced to adults would come to 300 millions. If all of them got one pound of cereals and half a pound of pulses per head per day we would need 73 million tons of cereals and pulses. As against this the latest figures available show a production of 61 million tons of cereal and 8.5 million tons of pulses. Deducting 7 million tons for seeds, the available quantity is only 62.5 million tons or a deficit of 10.5 million tons. Of course in the pre-war years we imported 4 to 5 per cent of rice but we also exported 3 per cent of wheat

and 1 per cent rice and were consequently self-sufficient in food.

Dr. Radha Kamal Mukherji in "Food Planning for 400 millions" in 1935 estimates that 110 millions of our population would be without food if we tried to give adequate food to each.

This is the present figure. In 15 years, i.e., by 1960 our population will be close on 500 millions. We must therefore produce at least 92 million tons of cereals and pulses. Add to it 10 per cent for seeds and our production should be 102 million tons in 1960. Of this 82 million tons should be cereals and 20 million tons pulses. In other words, our cereal production should be raised by one-third and pulses by about three times the present figures.

Of our 300 million acres under cultivation 80 per cent or about 240 million acres grow food and fodder. It should be this acreage that should yield us all the cereals, pulses, sugar, fruits and vegetables and rear farms for cattle and dairy.

The lands under cereals, pulses, sugarcane, vegetables, fruit orchards and dairy farms will have to be carefully allocated both in area, situation, soil and climate. At present areas under vegetables, sugarcane, fruits and dairy farms are evidently inadequate. Allocation to these heads will correspondingly reduce the area under cereals and pulses. In the circumstances nothing less than doubling the yield per acre will be satisfactory.

The prospects of doubling the yield are great. We have a fertile soil, good climate, abundant rains and an enormous population. Yet at present India produces 0·36 tons of rice per acre against Japan's 1·61 tons and the U.S.A.'s 1·01 tons. Our wheat yield is ·32 tons per acre as against Australia's ·42 and Canada's ·52 tons. We produce 12·96 tons of sugarcane against Java's 54·91 tons per acre. Our yield of cotton is ·04 tons per acre whereas Egypt's yield is 0·23 tons per acre.

Our difficulty is the small farm, indebted peasantry, ill-nourished cattle and traditional farming. The remedy lies in co-operative farming with abundant use of science and modern devices. At present only 54 million acres or about one-sixth of the area under cultivation is irrigated. It shall have to be doubled as the Bombay Plan envisages. Artificial manures and fertilisers will have to be employed and modern equipment for ploughing, sowing, harvesting and storage will eliminate much toil and make for greater efficiency. Collective farming linked to irrigation and to industries producing fertilisers and agricultural implements and generating power will complete the picture of our food planning.

B. Clothing

India will depend almost exclusively on cotton for clothing. Silk-rearing and raising sheep for wool are not likely to develop out of the stage of cottage

industries and they may not be taken into account. In the pre-war years total of mill cloth was on average 3,800 million yards and total from all sources worked to 6,260 million yards (vide Statement of fact issued by the Mill-owners' Association, Bombay—*Indian Nation*, 5th June 1945). For a population nearing 400 millions it worked up to about 16·1 yard per head. The world consumption per capita in those years was 42 yards. The National Planning Committee computed 30 yards per person per annum as reasonable. For a population of nearly 500 millions the production should rise to 15,000 million yards. The peak year war time production of the mills (1943-44) was only 4,800 million yards. Keeping the proportion during the peace years between handloom and mill cloth mill-made cloth should rise to 9,000 million yards or almost double and handloom cloth to 6,000 million yards. There is thus considerable scope for handloom weaving as a cottage industry while mill production requires to be doubled. In cotton textiles India can be self-sufficient and the export of short staple cotton can be considerably cut down. Here again cotton yield per acre will be raised to two or three times by the expedients enumerated above.

C. Housing

According to the 1941 census the number of houses was 76 millions of which 10 millions were in towns. The number of persons per house rose from 5 to 5·1 between 1931 and 1941. The average

house in the country is a flimsy structure with inadequate living floor and air space. If the housing were to be raised even to the standard of urban dwellings as at present there would be enormous demand for brick, timber, iron and cement. For purposes of housing alone the proportion of brick, timber, iron and cement will have to be increased sevenfold.

D. Medical Care

The existing standard of public health services and medical care would be clear from the vital Statistics of India as compared with that of the U. S. A.

Birth per thou- sand.	Death per thousand.	Infant mor- tality per thousand live births.	Expectation of life at birth,	
			Male.	Female.
India 33.0	21.8	167	26.91 yrs.	26.56 yrs.
U.S.A. 17.3	10.6	48	60.60 yrs.	64.50 yrs.

In 1939 more than 50 per cent of the deaths were of maternity and child welfare category. In the same year there were about 7,300 hospitals and dispensaries in British India and 74,000 beds. It worked at 41,000 persons per hospital and dispensary and 4,000 per bed. The number of doctors was 42,000 and of nurses 4,500 only. There were thus one doctor for 9,000 and one nurse for 86,000 people. In the United Kingdom there was one doctor for 776 and one nurse for 435

persons. To reach British standard of public health, we must expand health services many times.

Public health depends on water supply and general health services. At present water supply in the towns is not up to the requirement and in villages the condition is more chaotic. The Bombay planners calculate that to ensure proper and adequate water supply an investment of Rs. 100 crores is required.

As for health services medical facilities should be provided with an eye to the seriousness of the diseases concerned. The standard set up by the Bombay plan may be accepted. According to the Plan every village will have a dispensary with one qualified doctor and two nurses, at least one of whom must be also a midwife. For serious cases there should be general hospitals and maternity clinics in towns with a diversified staff and adequate beds. Important industrial concerns may have their own hospitals for the workers. There would be besides special institutions for treatment of diseases like tuberculosis and so forth.

The Bombay Plan puts the cost as follows:—

	Non-recurring in crores.	Recurring in crores.
Sanitation and water supply	Rs. 100	Rs. 7.5
Rural Dispensary	132	141.9
General Hospital	22	16.5
Maternity Clinics	8	6.6
Special Institution	19	12.5
	281	185.0

E. Education

India to-day has 75,000,000 children of school-going age. Of them not more than 10 millions are now attending school. The Sargent Scheme calculates that every year 7,000,000 boys and girls enter the school-going age but few of them stay on for higher education. In order to bring literacy to every child we shall need $2\frac{1}{2}$ million teachers at the rate of one teacher for thirty children against 3 or 4 lakhs now available.

Higher and technical education have their own importance and facilities for such education will have to be provided in large measure not only because we want citizens to share in the highest delights of arts and sciences but more immediately because to run the national economy we need a vast mass of skilled workers and a large intelligentsia made up of heads of administration, managers of industry, and of state and co-operative farms, engineers, architects, technicians, teachers, research workers, accountants, economists, statisticians and the like. The technical and higher education must guarantee a total supply of about 30 million intelligentsia at the end of 15 years if the Soviet standard of 1939 is any guide. In the U.S.S.R. in that year the intelligentsia numbered 9,591,000 in a total population of 170,000,000, i.e., one in 18. The magnitude of transformation may be gauged from the fact that in India at present the intelligentsia needed to run the national economy is

less than one per cent of the total population. This will have to be expanded six or sevenfold.

Travel and amusement are other constituents of well-being but their growth is not easily amenable to mathematical calculation.

CHAPTER VII

SOURCES OF WELL-BEING.

Food, clothing, housing, medical care and education are the recognised determinants of well-being. The scale at which these goods and services must be provided has been indicated already. These goods and services are called final or consumption commodities. The sources from which they will come must be indicated. Broadly these may be classified under the heads Agriculture, Industry, Transport and communication. Agriculture as we have seen provides food and cloth and raw materials for industries. Industry will supply agriculture with fertilisers, implements and power. For housing industry will supply cement, brick, iron and timber. For education it will supply buildings and equipment. For public health it will supply drugs and chemicals, buildings and appliances. For transportation it will supply railroads, locomotives, rolling stock, automobiles and aeroplanes and ships. For communication it will supply cables and wires, radio sets and so forth. Transport and communication, on the other hand, will help assembling raw materials and distributing finished products derived both from industry and agriculture. Transport and communication will contri-

bute to well-being directly by providing individuals with educative travels and excursions and communication with the world beyond.

Industry, which for our purpose includes mining and forestry, is thus the basis of further development of our economy. Of agricultural development we have already mapped the scale. The Bombay Plan and our calculations indicate that agricultural production must be doubled and suitably diversified.

Of transport and communication we should indicate the minimum requirement. India with an area of 1,580,000 square miles has only 41,000 miles of railways while Europe (excluding the U.S.S.R.) with an area of 1,660,000 square miles has a railway mileage of 190,000. In Great Britain railway mileage works at ten times that in India considering their areas. Railway development in India is, however, limited by the prospects of regional self-sufficiency and the possibility of cheaper road communication. Thus we need trunk lines more than feeder lines. The Bombay Plan accordingly envisages an addition of 21,000 miles to railways in India. On the other hand road development is estimated to add 300,000 miles to the existing roads so that the interior of the country may be linked with industrial areas and the ports. Inland shipping in India is not likely to grow to any considerable extent but coastal shipping must grow if the ports and harbours are developed.

Post, telegraph and telephone facilities are likely

to double on the lines of the railway and road communication and every linguistic group and province must have its own broadcasting station.

The Bombay Plan contemplates five-fold increase in industries at the end of the 15-year period. It is easy to see which industries must have priority.

The most important single industry to develop must be power industry. India is not endowed well with oil, and coal is an exhaustible reserve. We can, however, develop the hydro-electric resources of India tremendously. At present out of an estimated reserve of 27 million kilowatts only $\frac{1}{3}$ million has been developed. In available energy this means 1,095 million kilowatt hours for India as against 24,936 million kilowatt hours for Canada; 40,937 million k. w. h. in the U.S.A. and 19,651 million k.w.h. in Japan. Planned development should enable us to raise the production of hydro-electric energy to at least double the present developed energy of Japan, i.e., to about 35 times the present production of India. This looks like a dizzy advance but any advance over zero in mathematics means advance to infinity. Percentages are deceptive when we start from infinitesimals.

It would be interesting to compare our estimated output of electrical energy to the estimate of the U.S.S.R. at the end of the Second Five Year Plan. The Soviets planned for 4,670 kilowatt hours of electrical energy per worker for 29 million workers, i.e. 135,430 million Killowatt hours

for the country. Ours is less than one-third of the Soviet estimate.

The second industry in priority must be engineering to produce machines and machine tools for all other industries. Engineering is in the true sense the key industry. A country can be self-sufficient only if it produces all the machinery it needs. It would be foolish for us to stock our country with machinery which we cannot even repair. The price paid for it will be heavy in terms of foreign exchanges. At present our engineering industry consists, according to the Grady Mission, merely of assembling plants. We must have manufacturing plants. The extent of development in this direction will be enormous.

The third in importance is the production of iron and steel and mining of ores. We are in the iron-age and iron is the raw material for all machinery and buildings. Mining and metallurgy are very backward in our country. A good test is the production of iron and steel. In 1936 India mined 1,666,000 metric tons of iron ore and produced only 880,000 metric tons of steel. In the same year the Soviet Union produced 27,918,000 metric tons of iron-ore and 16,241,000 metric tons of steel. In iron and steel again India possesses one of the largest high-grade ore reserves in the world. As in hydro-electricity, so in iron and steel we have tapped only the fringe of our vast resources. Mining and metallurgy by this standard should be expanded 15 to 20 times

before we can cope with the need of industries in the country.

The fourth in importance is the development of chemical industries which are almost non-existent in India to-day.

In transport we are very backward. We have no automobile industry, negligible shipbuilding, no locomotive plants and little of railway carriage manufacture. In all this line development has to be enormous. Considering the area of our country we should be satisfied with nothing less than what the Soviets achieved in these lines at the end of the Second Five-Year Plan. In 1937 the U.S.S.R. was producing 166,700 tractors of 15 h.p. equivalent; 20,000 motor vehicles; and 2,800 locomotives. This is the minimum we should achieve at the end of the 15-Year plan.

Lastly for the huge building programme both for industry and residential purposes we must have a well-developed cement industry. In 1937 India produced 1,142,000 metric tons of cement. In the same year the U.S.S.R. produced 7,500,000 tons. We must multiply cement production seven-fold.

There are other industries like armament but it is not possible to speak of them with confidence.

As for consumers' goods industries we have already hinted at doubling the production of cotton textiles. Manufacture of shoes and leather; of cycle, radio sets, and furniture, etc., will be important industries. In consumers' goods industries

cottage industry will have a large place and they need not be rigidly planned.

It would thus appear that the Bombay Plan which aims at increasing incomes from industries five-fold is very very modest. The mistake of the Bombay Plan lies not so much in its moderation nor in its estimates of the needs and possibilities but in the more controversial social aspect, namely, in how far individual initiative with profit motive and inequality should be allowed.

CHAPTER VIII

THE RESOURCES FOR PLANNING

Before we examine the necessary resources for planning it is worth while examining the national income that we want to achieve at the end of 15 years of planning. The Bombay Plan wants to double the per capita income which considering the growth of population involves raising the present national income of India three-fold.

Our own calculation shows that our national income should be made up as follows. In all this the rupee has been calculated at the pre-war value: —

Food at Rs. 65 per annum for 500 million.	... Rs. 3,250 crores
Clothing at annas 0-3-6 per yard at the rate of 30 yards per individual	„ 3,30 „
Housing at 7½ per cent of annual value as calculated by the Bombay Plan	„ 2,60 „
Medical care and Health as cal- culated by the Bombay Plan ...	„ 1,91 „
Primary education ...	„ 90 „
Total	4,1,21 „
Conventional necessities by way of furniture, utensils and travel and amusements 25 per cent of the above	„ 1,0,30 „
Total ...	5,1,51 „

National defence and Reserves,
etc. at 25 per cent of the above Rs. 1,2,88 crores

Total „ 6,4,39 „

The total national income of Rs. 16,4,39 crores should be compared with the income of the U.S.S.R. in 1940 when it was 126 billion roubles or Rs. 6,250 crores for a population less than half that of India to-day. The Bombay Plan which estimated the rise of the national income to Rs. 6,600 crores, therefore, is not unduly extravagant. It means raising national income to three times in 15 years as against the U.S.S.R. where the rise in national income was from 25 billion roubles to 126 billion roubles in 12 years, i.e., from 1928 to 1940. Even at the end of the 15-year plan our per capita income will be less than 60 per cent of the per capita income in Japan in 1939.

Now the main sources from which income will be derived will be agriculture and industry including transport, construction, cottage and other industries.

As for agriculture it is clear that India will be unable to have a net balance of exports in respect of foodstuffs. This is so because every country is now planning for self-sufficiency in food. Certain specialised agricultural products like jute, tea, coffee, oil-seeds, etc., will continue to find a market abroad. In any case the development of agriculture is not going to be unlimited. 80 per cent of agriculture in India to-day is devoted to raising

food crops and only 20 per cent to growing raw-materials for industries. Food production as we have seen will have to be doubled. Agricultural raw materials may be also expected to be doubled to provide for an expanding export and to meet the needs of the home industries. Thus there is little scope for raising agricultural products, i.e., agricultural income, beyond double.

Sir M. Visweswaraya in his pamphlet "Industrialising India" computes the share of agriculture at four-fifths of the national income of India while that of industry at one-fifth only. If the national income is to be trebled and agricultural income is to be doubled only, agriculture and industry would account respectively for $8/15$, and $7/15$ of the national income, or, in other words, for Rs. 3,520 crores and Rs. 3,080 crores respectively. This means advance to 200 per cent in agriculture and 700 per cent in industries.

Now raising agricultural income to Rs. 3,520 crores should be a much simpler problem than raising the income from industry. There is a vast reserve of agricultural labour in our country. Skilled and technical labour is not required in agriculture to the same extent as in industry. The land is there and capital investment will be comparatively small. The ratio of labour to capital will be very large in agriculture. Organisation in collective farms and growth of industries, particularly of fertilisers, power and agricultural

machinery, would mean automatic development of agriculture.

Industry, however, is a much larger problem. Here again unskilled workers could be had in millions without difficulty. But we would need managers of industry, technicians, engineers and architects, research workers and so forth in large numbers. In the Soviet Union in 1939 the intelligentsia to run the national economy numbered 9,591,000 against a total employment of about 30,000,000.

In 1937 specialists numbered 4,009,900 against a total employment of 28·9 million of whom large-scale organised industries, transport and construction employed 14,228,000. Roughly, therefore, 30 per cent of those employed in large-scale industries, transport and construction should be specialists and skilled workers. In 1930, according to Sir M. Visweswaraya, 1·5 million Indians were employed in organised industries. This figure has remained more or less stationary except for some development during this war. At the end of the 15-year plan employment in organised industries is expected to rise to 10·5 millions. Thus there would be a net addition to employment to the extent of 9 millions of which 2·7 millions must be specialists. Even in the beginning of the plan, therefore, we would need foreign experts by hundreds of thousands to set up plants and to initiate production. We may, however, cut down this number considerably by sending workers for training in industries abroad.

Thus our capacity to expand industries will depend greatly on our possibility of getting Indian workers trained abroad and of importing foreign experts. There should be organised effort at getting workers trained abroad. Such training need not be of long duration. Luckily for us the advanced industrial countries of the west including the U.S.A. will find a vast mass of technicians released after demobilisation and it should not prove difficult to get the skilled workers in the quantity needed.

Unlike agriculture organised industries will have a much larger proportion of capital as against labour. The fixed capital needed during the 15 years of planning has been calculated by the Bombay Plan as follows:—

(In Crores of Rupees)

	Capital Non-recurring.	Capital Recurring.
A. Agriculture	845	400
of which		
(a) soil conservation	200	10
(b) working capital	..	250
(c) irrigation canals	400	10
Ditto wells	50	..
(d) Model Farms	195	130
B. Industry at 2·4 times the gross income derived from it	4,450	...
C. Transport and communication	897	49

	Capital Non-recurring.	Capital Recurring
of which Railways	434	9
Roads (new)	300	35
Roads reconstruction	113	...
Ports	50	5
D. Education	267	237
E. Health	281	185
F. Housing	2,200	318
G. Miscellaneous	200	...
Total	9,170	1,189

Thus total capital needed is 10,359 crores. This theoretical figure is probably an under-estimate. Thus in Agriculture no provision has been made for heavy agricultural equipment like tractors, etc. The planners assumed that the wooden plough and the plough cattle will continue to be the equipment of the agriculturists but organisation of agriculture into co-operative farming makes for the use of modern heavy equipment for greater efficiency. The estimated proportion of fixed capital to the total income from agriculture as the planners envisage is only 1/3. In the Soviet Union the estimated income from agriculture in 1937 was 17.60 billion roubles while fixed capital in agriculture was 22.60 billion roubles, the proportion of fixed capital to income being 1.3 or almost four times the proportion in India. The income from agriculture that we think necessary at the end of the 15-year period is Rs. 3,520 crores. Assuming even a very modest mechanisation of agriculture we cannot fix the proportion of capital to income at less than half. On this showing fixed capital

needed for agriculture comes to Rs. 1,760 crores or double the estimate of the Bombay Plan.

In industry the proportion of fixed capital to income calculated at 2·4 is reasonable considering that in the Soviet Union fixed capital in industry in 1937 was 75·2 billion roubles as against income from industry which was 46·4 billion roubles. In India we have planned for industrial income to rise to Rs. 3,080 crores involving a capital outlay of Rs. 7,392 crores. The Bombay planners put the figure at Rs. 4,480 crores only.

There is little objection to the other estimates of fixed capital which may be accepted. The total capital needed on our estimate thus comes to Rs. 13,786 crores as against the Bombay Planners' estimate of Rs. 10,359 crores.

How shall we finance our capital requirements? It is essential to bear in mind that although expressed in rupees capital in real terms stands for goods stocked, buildings, machinery, canals, roads and such other things. All these things are the result of human labour not devoted to production of things of immediate consumption. Thus building up investment involves employment of labour on non-consumption industries.

Now it is much easier to build roads in India relying on Indian resources than to manufacture locomotives and aeroplanes. The materials for road making are available in this country and to appropriate the materials for the roads requires

relatively unskilled labour with simple tools easily manufactured in the country. On the other hand, the materials for making locomotives are not readily available in India nor is the skilled labour and capital easily had. It is possible that over half the fixed capital required for the 15-year plan will consist of items like roads and buildings for which we can depend on Indian resources. It would be the task of an expert Commission to go into details and to isolate the items of fixed capital that can be provided for locally and those that must be imported.

The capital goods that can be provided for locally are governed by considerations different from those governing items that must be imported. Ordinarily a country can equip itself with capital goods only at the sacrifice of the production of consumption goods. Thus if I want to make a garden I must take days off from my ordinary employment and suffer diminution of income temporarily. But if I have a brother who is doing nothing and can be persuaded to work in the garden the family can acquire a garden without suffering any diminution in income. Of course even in this case the brother could have preferred to earn wages for present consumption and in absolute sense opportunity of present enjoyment has to be sacrificed.

India is like a family where several members are unemployed. We could draft 2½ million able-

bodied men for the army and agriculture and industry were none the worse for this. Similarly an enormous number of war-workers was diverted to digging trenches, building aerodromes, making roads and putting up barracks without seriously interfering with the normal production of the country. It is clear, therefore, that a large volume of labour can be immediately drafted to the production of capital goods without reducing the production of consumption goods. In fact, if co-operative farming were introduced, the number would be swelled considerably.

Nor is it difficult to find means to give employment to the surplus workers. No nation has found it difficult to finance the war. The weapons are either outright conscription or voluntary employment for wages to be paid for from taxation, from loans or from created money. In all cases the employment involves redistribution of the national income without appreciable effect on the volume. This can be, however, done only by a Government that can create a fervour among the people that leads society from one adventure to another without too close a consideration of gains and losses. In India, given favourable circumstances, we shall have to employ each of the weapons in the appropriate degree. For national rebuilding is no less urgent a task than war and orthodoxy in finance cannot be made a fetish. The Bombay Plan does not consider the possibility of conscrip-

tion, nor does it give any place to taxation for investment. The plan, however, boldly advocates finance by created money, i.e., by enabling the Reserve Bank to issue notes against *ad hoc* securities of self-liquidating character. It is remarkable to what extent the Bombay planners have gone in this direction. Fully Rs. 34,00 crores of created money is planned, i.e., one-third of the total fixed capital required. The only difficulty is that the Bombay Planners do not sufficiently realise the significance of created money. It means a wholesale redistribution of society's income and a rise in prices. Inflation of a moderate degree will be inevitable in spite of the most rigid control of prices and also rationing. All this involves social action and industries financed by created money should vest in the society and not in the individual profit-maker. Fully one-third of organised industry must be socialised on this consideration.

The Bombay planners expect that at least 6 per cent of the national income will be available to industries voluntarily in the shape of savings. At this rate in 15 years Rs. 4,000 crores may be found. This rate which is rather modest may be compared with 30 per cent at which the Soviets compelled savings out of available income. The whole subject of savings, however, is tied up with the necessity of import of certain capital goods. We cannot produce a machine outright. We must import it. If we start painful building of a machine-making industry in

India by Indian resources we would take centuries to industrialise fully. The experience of the Soviet Union is there before us. It had to get German and American machinery at any price to fulfil its plans. We shall have to rely upon foreign capital goods to a considerable extent.

It is however necessary to emphasise that the planning body must try to cut down imports of foreign capital goods to the necessary minimum. This can be achieved if our first years of planning are devoted to building up a machinetool-making industry and developing power plants. We should wait for machinery for such industries as sugar and textiles to be provided in our own country. It is possible to cut down import of capital goods, by such devices to about one-third of the total of fixed capital needed. We should thus find the means of paying Rs. 1,000 crores worth of capital goods to be imported. There are two possibilities. We may, like the Soviet Union, be denied foreign loans. In that case industrialisation will be a very difficult process. In that case like the Soviet Union we shall have to tighten our belts and demand of our citizens to cut down their requirements of their sorely needed necessities and dump food, cloth, and raw materials on the external world at whatever price we can get to pay for necessary imports. In such a circumstance a national saving at 30 per cent will not be extravagant.

But perhaps we need not be so pessimistic. We

have a gold hoard of Rs. 1,000 crores and people still set great value on the yellow metal. Part of this hoard could be easily employed in paying for essential imports. The Bombay Plan expects to use Rs. 300 crores worth of the metal for this purpose.

More immediately we can utilise the sterling balances we have acquired abroad as a result of the war. We are entitled to Rs. 1,700 crores worth of sterling balances that have accumulated as a result of unilateral trade during the war. We exported and sold to the allies much more than what allies have spared for us in goods and services. Unfortunately the fate of the sterling balances is still shrouded in mystery. We are a dependent country and it is not unnatural that we apprehend England denying us the use of the balances altogether or dissipating it by forcing on us consumer goods at fancy prices. To anyone interested in industrialisation of India the sterling balances should be a sacred trust which must not be dissipated frivolously.

The Bombay Planners count on a favourable balance of trade for India to the tune of Rs. 600 crores in 15 years. This is a most doubtful item. Favourable balance is largely a misnomer for what is a favourable balance in terms of goods has to be paid away for invisible imports like shipping, banking and other services. We, however, export certain essential commodities which are likely to be in constant demand. Thus export of jute,

manganese, mica and oilseeds to Europe and America and of short staple cotton and pig iron to Japan is likely to be kept up at least at the present level. The least we can do is to demand payment for these goods in terms of machinery and capital goods. By this means we are likely to pay for Rs. 600 crores worth of imports.

Thus it would be possible to find Rs. 2,600 crores of resources to pay for essential imports without much difficulty. For Rs. 1,400 crores we shall have to rely upon foreign loans. At the rate the U.S.A. and Great Britain and the Soviet Union are financing the war it is evident that if they choose they can easily find Rs. 1,400 crores of machinery to supply us on credit. We may be allowed credit for the purchase of the machinery in those countries. In the past foreign capital has gone with foreign control, prejudicially to national interest. The terms of the loan could be so arranged as to avoid this contingency. Indications are that foreign credit will be made available for the development of backward regions. If this happens without injury to the interest of the regions concerned, no exceptional suffering need be undergone. If, however, such facilities are not available we shall have to slow down our tempo of industrialisation until we can make machinery in our country or we shall have to adopt the desperate measure of dumping our products abroad at any price we may get and of deliberately tightening our belt.

Thus with suitable grading of industries for priority of development and with a resolute national will we would have no difficulty in finding fixed capital for our industries. Internally we shall divert the enormous surplus man power of India to the production of producers' goods without affecting the existing volume of consumers' goods. Externally we would employ our gold hoard, our sterling balances and our essential exports to pay for the necessary imports. Lastly we should be able to borrow Rs. 1,700 crores abroad; but if that were not possible a little hardship cheerfully borne with a slight slackening of tempo will see us through the plan. We repeat economic planning like war is an urgent social programme and cannot suffer for failure of finance.

CHAPTER IX

PLANNED DISTRIBUTION OF INCOMES

At present income is distributed in the course of production. In fact what is called *distribution among factors of production* is nothing but an incident in cost accounting. Thus a firm allocates X to wages and salaries, Y to profit and interest and Z to rent. The total of X plus Y plus Z is the cost of production of the firm. This distributed over the products gives the average cost of production and the supply price of the product. The firm expects to realize X plus Y plus Z on the sale of the products and if at any time it fails to get back X plus Y plus Z in realised price, it begins to curtail the size of X , Y and Z as much as practicable. If there is resistance to this curtailment, the firm simply goes out of production. On the contrary if realised value is larger than X plus Y plus Z , the firm would not mind increasing the size of each constituent of the cost. The size of X , Y and Z is a resultant of contradictory pulls and is always arbitrary. The illusion of precision is brought about by the fact that the costs are expressed in money.

Again, while factors directly taking part in production get a reward, the mere knowledge of the size of X , Y and Z can throw no light on the resulting

distribution per capita. Thus two workers may get wages at the same rate but one may have worked longer or turned out more work than the other and the actual wages would be unequal. The unequal wages may go to the support of families that are very unequal in respect of their needs. Thus the worker getting the lower wage might have a larger family. There may be more sickness in one family than in the other and so on and so forth. Happiness depends on the size of the individual income and not on the rates of wages, salaries, rent and interest or even on their absolute size. At present the size of the individual income is nobody's concern and the play of economic forces is little affected by conscious social control.

A planned society will be essentially different. In the first place there will be no determinate cost of production of individual firms when all the firms are working according to socially determined priorities. There will be social cost of production for the entire economy but not for the individual firms. Even so a system of cost accounting will be employed to determine whether a firm is working economically or not and this accounting will be probably in terms of money. Yet while there will be nominal money cost the cost may not necessarily emerge as income. Thus the output of a commodity in short supply, e.g. shoes in the Soviet Union, may be artificially priced high to ration out the supply. But merely because leather is in short supply the resultant

higher return to the firm will not be redistributed among the workers in entirety. Thus 500 pairs of boots may be valued at 5,000 rupees but all the 5,000 rupees will not be paid in wages to the 50 workers who produced the boots. These workers may be no different from those in other employments. The state will in such cases take away much larger value for social purposes and leave only so much to be distributed among the workers as would give them a wage of the same size as other workers in other jobs may be getting.

This has far reaching implications. The supply price becomes absolutely independent of the incomes received by the factors of production. Income distribution is no more an incident to production but has to be independently planned. Secondly the income will be graded according to the need of the individual. A number of devices will be adopted to secure this end. In the first place out of the total produce a portion will be set aside for maintenance of common services. These will include not only education, health and recreation but also maintenance for the children, the sick and the aged who cannot work but who have either worked for society in the past or will work in the future. Again there will be a deduction for depreciation as well as development of social capital and for reserves against misfortunes. The rest may be distributed among workers according to their work.

Even the individual income so secured will not be

entirely sacrosanct. There may be redistributive taxation to transfer surplus incomes from some to subsidise others.

What will be the size of the deduction for a social pool and the extent of the redistributive taxation will be more or less an arbitrary decision. The resulting income distribution will be very much less unequal than it is today.

Thus the Bombay Plan calculates the existing per capita income at Rs. 51 and Rs. 166 in rural and urban areas. In 1931-32 one half of the total urban income was in the hands of less than 10 per cent of urban workers. Of urban income above Rs. 2,000 a year 38 per cent of the earners could claim only 17 per cent of the total income and a little more than 1 per cent possessed as much as 10 per cent of the total income. There was gross inequality everywhere.

This will have to be moderated. For even the total income of Rs. 6,600 crores to be secured at the end of the 15-year plan is barely enough for necessities and there is little superfluity. Any inequality will mean deprivation to some class of people or other and will lessen economic well-being. The equality will be achieved by providing for certain services in common. In the Soviet Union in 1937 to the total wages and salaries was added a fund for cultural and social services to the extent of 18 per cent of the wages bill. In India the plan envisages recurring expenditure on education, communication and health at 7 per cent of the total national income. If

we add certain insurances and other benefits our social pool will not be smaller than 20 per cent of the total income.

The extent of transfer involved in redistributive taxation will depend on earners per family, the size of the family, the rate of income and many other factors which cannot be foreseen at present.

The Bombay Plan contemplates changes in the income structure and the occupational distribution as follows:—

Workers in millions.		1931 Per cent.	Average income expressed in rupees.
Agriculture...	106.3	72	114
Industry ...	22.1	15	161
Services ...	19.2	13	264
Total	147.6	100	
Total population 338.1			

Workers in Millions.		1962 Per cent.	Average income in rupees.
Agriculture ...	129.7	58	220
Industry ...	57.9	26	368
Services. ...	34.7	16	397
Total ...	222.5	100	
Total population		494.0	

It would appear that the plan envisages rise in employment by 50 per cent over three decades. This is probably an over estimate. There is indeed room for increase under the category of services. Education, health and entertainment will demand a vast increase in personnel. But the population employed

in agriculture may well remain stationary or even go down. We know how agriculture is already overmanned and any rationalisation in agriculture will release workers rather than absorb them. An addition of 23·4 million workers to agriculture is, therefore, unthinkable unless we perpetuate tiny peasant holdings and permit further fragmentation of the same.

There is considerable scope for improving employment in industries. But even here it has to be borne in mind that the industrial development is likely to be in the form of power-using modern manufacture which will need more capital than labour. The Bombay Plan favours industrial organisation as in Japan and Germany. Sir M. Visweshwaraya calculates that in the early thirties 90 per cent of industrial establishments in Germany were connected with small-scale industries and that two-fifths of the entire working population was employed on them. In Japan out of 55,945 establishments listed in 1928, 50 per cent employed from 5 to 9 workers and only 0·5 per cent had as many as 1,000 workers or more.

There are many arguments for such decentralisation of industry but decentralisation does not necessarily mean more employment. It only means the factory limits widened out to spread into the country.

Thus organised industries to give us seven-fold income will not need more than 4 or 5 times as

many workers as to-day. Cottage industries will probably expand slightly but not very much. Even the Soviet Union which industrialised at a dizzy pace could not employ more than about 12 million new workers in the course of three five-year plans. We calculated employment in organised industries to rise to 10 millions and in cottage industries to about that figure. The present employment in industry shown to be about 25 millions includes a large volume of sporadic and seasonal employment and conceals considerable under-employment.

It is thus clear that the Bombay Plan figure of employment at 45 per cent of the population is excessive. When children up to 16 years will be compulsorily attending school, when there will be no obligation on old people to work in the proportion as to-day, the adults available for employment would not be more than half of the total population. This employable population will count 50 per cent or so of women of whom not more than a quarter is likely to be diverted to work outside the home. Thus if 33 per cent of the total population could be put to wholetime job we would have reached the state of full employment. In G.B. in 1929 when employment was highest the total number of persons receiving income including those who never toiled or spun was 19,652,000 in a population of 46 millions. There were only about 18 million people employed in a population of 46 millions or less than 40 per cent. In Russia in 1937 out of a

population of 180 millions, 28·9 millions were employed as workers receiving wages and salaries besides 22 million families organised into collective farms. The total employed population was thus about 60 million or 33 per cent. At this rate our aim should be to reach an employment figure of 165 millions. The Bombay Plan's figure of 222·3 millions is plainly unattainable.

CHAPTER X

STATISTICS AND MEASUREMENT

A planned economy cannot rely upon the so-called automatic guides of free capitalism. The economic calculus of price as a regulator of production and consumption will give place to complex considerations of the calculus of all-round happiness. These complex considerations have not yet been synthesised and organised into a formula that could offer a rough and ready guidance. In the result a planned economy can work only in accordance with categorical social judgments. The directives have to be issued clearly to each establishment as to what to produce, and in what quantities and how to arrange for the disposal of the produce.

The decisions can be arrived at only after a full self-analysis. The authority responsible for the decisions must have all relevant information. Here is the need for comprehensive quantitative measurement and statistics.

We know how the aggregate figures of production and trade are more or less stationary from year to year. This is an instance of the inertia of large numbers. The planning authority will not work in vacuum. It will know the actual pro-

duction of the past year and the actual off-take. It will also know the extent of raw materials available from year to year. The planning authority will need only to provide the variations in these figures in the light of available data. Suppose the average annual production of wheat in the past has been 15 million tons but that the planning authority decides that this figure should rise to 20 million tons; the relevant data for it are the area under wheat, the irrigated and non-irrigated areas, the areas under other cereals, the prospects of raising the yield by scientific devices and so forth. The data must be accurate and complete.

Again quantitative information and statistics will not only enable the authorities to come to a decision, the figures will be a justification for the directions issued. Thus the mariners on a ship may rebel against the arbitrary command of the captain of the ship. But no one will rebel if the command follows the indication of the compass and few would quarrel with road signs however mandatory. This important virtue of statistics must be fully exploited. We know that planning demands the minimum of political interference. This is only possible if the plan is held to be reasonable by all. Mathematical equations do not change with change in governments on account of the compulsive power of reason. Figures, plans and charts possess similar compulsiveness.

In order that full use might be made of statis-

tics there must be a well-planned statistical organization. The organisation will be directly under the National Planning Committee. There will be regional and territorial organisations for collection and compilation of statistics functioning as branches of the central organisation. The statistical organisation will have powers to call for figures and information from all establishments and institutions functioning in the national economy. It will have an inspectorate which will audit the figures and see if the statistics supplied are correct.

The facts that would be reported to the statistical organisation will be either readily available or require to be specially collected. Establishments and institutions would be reporting on their individual activities as required. Thus returns about volume and cadre of labour employed, the machinery used, the process employed, the quantity and kind of produce of each establishment could be had readily from figures available in it. Similarly the sale of commodities of each grade and kind would be reported by the consumers' co-operatives and the producing factories. The statistical organisation will be only a compiling authority in case of returns received from individual establishments and institutions. The returns will be analysed and digested by a competent and expert staff and necessary conclusions drawn. Thus the statistics might indicate a rise in the production of a cer-

tain commodity and fall in the sale of the same and consequent accumulation of stock. The expert staff in charge of the analysis will pick up these significant facts and the planning authority would on this basis issue directions for curtailing production of the particular commodity and for disposal of the accumulated stock at reduced prices. And so on and so forth.

This will be one branch of the statistical organisation. There will be another branch which will directly collect primary data. Thus census of population, of livestock, of unemployment and so forth must be taken up by the organisation directly. So also census of available geological and forest resources. This branch of the statistical organisation will undertake expeditions, surveys and field inquiries and will need a specially trained staff. Their report will provide the basis for planning the scale of the economy.

The volume of work of this organisation would be apparent from the range of information required by the Soviet planning authority for the second Five Year Plan.

The statistics collected for the Planning Authority was organised under 16 principal heads with details under each. The details given here are only illustrative. In each case suitable units had been worked out according to the nature of the information wanted. The sketch table is as follows:—

I. Population: (a) Urban, (b) Rural.

- II. Total number of workers employed distributed over various industries and agriculture.
- III. Fixed capital in (a) Industry, (b) Agriculture, (c) Transport, (d) Urban housing, (e) Municipal services, (f) Éducation, (g) Public health.
- IV. Construction in
 - (a) Agriculture, (b) Industry, (c) Transportation, (d) Construction for social and cultural purposes, namely,
 - (i) Urban housing,
 - (ii) Municipal service,
 - (iii) Education,
 - (iv) Public Health.
- V. Output of industry including handicrafts and comprising electric power generated, coal, crude oil and gas, pig iron, steel, rolled products, railroads, copper, zinc, aluminium, tractors, machine tools, harvester combines, motor vehicles, locomotives, freight cars, passenger cars, cement, fireclay, China clay, window-glass, sulphuric acid, soda ash, caustic soda, automobile tyres, merchant timber, saw-mill products, paper, cotton fabrics, woollen fabrics, linen fabrics, soap, leather footwear, flour and cereals, fish, meat, granulated sugar, canned goods.
- VI. Agriculture:
 - 1. Total sowing area, separately under

grains, and under State, collective and individual farms.

2. Tractor fleet in agriculture,
3. Motor Vehicles,
4. Agricultural machinery,
5. Mineral fertilisers supplied, including nitrates, potash, phosphoric powder.
6. Machine and tractor,
7. Peasant holdings collectivised,
8. Gross output (a) land cultivation, (b) stock raising.
9. Production of grains, cotton, flax, sugar.
10. Yield.
11. Productive livestock: horses, cattle, hogs, sheep and goat.

VII. Transportation:

1. Length of railroad lines, electrified and otherwise.
2. Length of navigated waterways.
3. Length of well-paved metalled highways.
4. Total number of locomotives for freight and passenger cars.
5. Freight cars.
6. Load capacity,
7. Motor vehicles.
8. Freight traffic: railway, river, maritime and air.
9. Average daily carloading.
10. Passenger traffic: railroad, river, maritime.

VIII. Communications:

1. Total volume of output of communications.
2. Length of inter-urban telegraph and telephone lines.
3. Installed capacity of urban telephone exchanges.
4. Rural telephone services.
5. Number of radio broadcasting stations.
6. Radio sets, and transmitters.
7. Post offices and sub-stations.

IX. Available power and mechanisation:

1. Power available in industry.
2. Electric power available in industry.
3. Mechanisation of laborious processes:
 - (a) Coal-cutting,
 - (b) Peat (extracting),
 - (c) Timber mechanised haulage,
 - (d) Proportion of pig iron from fully mechanised blast furnaces,
4. Railroad transportation.
5. Mechanisation in agriculture:
 - (a) ploughing,
 - (b) harvesting by tractor-drawn harvestors,
 - (c) cultivation of fallow by tractor-drawn cultivators
 - (d) threshing.

X. Labour and Cadre:

1. Number of workers and employees in industries, agriculture, transport and construction.

2. Number of specialists in all branches of the national economy.
3. Total wages fund of workers and employees.
4. Fund for cultural and social services.
5. Real wages.

XI. Housing and Municipal services.

1. Total available housing.
2. Average living space per person.
3. Number of cities supplied with water-works.
4. System of street water-mains.
5. Number of cities having sewerage system.

XII. Public Health.

1. Number of hospital beds in urban districts.
2. Number of hospital beds in rural districts.
3. Number of accommodation in permanent nurseries,
(a) urban, (b) rural.
4. Number of accommodation in seasonal nurseries in rural areas.
5. Number of beds in rest homes under the Trade Union.
6. Number of persons accommodated in rest homes.
7. Number of beds in health resorts and sanatorias.
8. Number of physicians, nurses, etc.

XIII. Education.

1. Number of persons attending general and vocational schools.
2. Number of pupils in schools of universal education.
3. Number of students in Colleges, middle and technical schools.
4. School accommodation.

XIV. Press.

1. Newspaper circulation.
2. Books and periodicals.

XV. Art.

Number of places of entertainments (motion pictures, theatres, etc.).

XVI. Science. Scientific and research institutes and workers.

Only when we have the entire anatomy of the national economy within view can we follow its trends and give direction to it. This self-analysis and measurement has enormous significance and the organisation of statistics must be planned both for expertness, comprehensiveness and reliability.

CHAPTER XI.

SCIENCE AND RESEARCH.

The aim of economic planning is to guarantee satisfaction of human needs with the minimum of effort and to maximise leisure and opportunity for spiritual and cultural growth. All this demands the widest and most thoroughgoing use of science. Not only is a certain amount of scientific and technical knowledge necessary for running the machine economy, but there must be constant search for new raw materials, for sources of power and for improved mechanism for their utilisation. Again it is not only physical and chemical sciences and engineering that need cultivation. There must be researches into better ways of utilising leisure. There must be sociological studies as to incentive and as to effect of institutions on men. And so on so forth.

The vast intelligentsia that will direct and manage the national economy and the large percentage of skilled workers and mechanics must have a thorough grounding in theoretical and practical sciences. The general population must be also able to understand the statistical account of the national economy if it is to take intelligent interest in affairs. Whatever the organisation that may be

suggested, there is clearly an overriding reason for giving a scientific and technical bias to our education which is so largely literary. The universal polytechnics of the Soviet Union are a guide in this direction.

Apart from a general diffusion of scientific knowledge, the national economy will require a large band of workers to conduct researches on the myriads of problems that will be arising. For economy of effort and to avoid duplication the scientific and research institutes should be organised regionally. Problems arising out of agriculture, industry and transport in any region would be referred to the institute of the region concerned. Each regional scientific research institute should have departments dealing separately with subjects like the following:—

1. Problems relating to the study of the structure of matter based on the latest achievements in astronomy, physics, chemical physics and chemistry;
2. Problems relating to the utilisation of natural resources of the country and the region;
3. Investigations of power resources, new sources of power, distant power transmission and electrification of industry, transport and agriculture;
4. Distribution of productive forces, seismic investigations, investigation of building materials, question of health protection, etc.;
5. Chemification of the country;

6. Study of the evolution of the organic world, which may stimulate greater harvests, and assist in combating drought, in cultivating new crops, in the intensification of cattle-raising, in the creation of raw materials for light industry.

7. Socio-historical problems of individual and group psychology, of crime reform, etc.

The institutes should have an adequate staff and equipment to handle the problems.

The activities of the various regional institutes will be co-ordinated by a central Institute of Science and Technology jointly under the Planning Authority. The Government would submit problems to the institute for study and the problems submitted to the various regional institutes by industry, agriculture and transport would be sorted out by the Central Institute and allocated to the institutes most well-equipped for the particular line of research.

The financing of the network of scientific and research institutes should be entirely a State concern. Only so can purposive research flourish and only so will the institutes not wilt away for want of questions to investigate. Lest there should be a misapprehension that research rendered into a handmaid of industry would be narrowly specialised and lack the width and freedom of unfettered flight of genius, research and science should be encouraged also freely in the older Universities that may not be tramelled by practical questions.

As for the number of such institutes and the cadre of scientists employed an idea may be had from the fact that in 1934 in the U.S.S.R. there were no fewer than 840 separate scientific colleges and institutes with 188 branches, all of them of university grade and rank. In 1937 the number of scientists and research workers in the Soviet Union was no less than 50,000.



CHAPTER XII

EPILOGUE

I have deliberately refrained from dwelling on the subject so dear to the economists—particularly foreign—when they discuss the economic prospects of India, namely, planning of population. They are appalled by the fact that in 70 years since 1871 Indian population has increased by 50 per cent and that all efforts to raise the income of the country are rendered nugatory by population outrunning the means of subsistence.

Now the growth of population in India is not extraordinary. The U.K. during this same period has registered a much larger increase in population. Even at present considering its size and resources India is less densely peopled than the U.K. The fear of population outrunning the means of subsistence related mainly to food and science has shown that food for the population can be had with lesser effort than at any other time. Great Britain is one of the least suited for growing food but even Great Britain is trying to achieve and has already succeeded in achieving considerable self-sufficiency in food.

Thus the growth of population is not necessarily a cause for alarm. Even if we concede that Indian population has to be curtailed or checked there is no organised method of doing so. There is no instance of planning of population and the data on which such a plan would be based

are still controversial. We would, therefore, have to rely on individual attitude to procreation. Of course advice on birth-control should be given freely and cheap and effective methods of contraception should be found. There can be, however, no compulsive planning of families or of types of population. Our action should be to educate people to enable them to check birth if they choose. One of the surest way of doing this is to augment the material conditions of life, to provide for healthful and interesting activities, for leisure and other comforts. Thus in the advanced industrial countries where bread and butter has now been secured for the poorest birth-rate is already falling. Other devices are late marriages and fewer marriages. Both of these would be helped by making education compulsory and raising the school-leaving age and the age for entry into trade. Creation of interest in science, art, literature and other subjects would provide an alternative source of pleasure and diminish absorption with sex that characterises the starved humanity of to-day.

Thus check to population would come from education and from the working of the entire social environment. This has to be indirect. Planning population compulsively may be mischievous and would be certainly distasteful. We should not, therefore, encourage loose ideas on planning population.

Another aspect of this essay has been to bring

out the social and political implications of planning. We have seen that planning cannot concern itself with what is narrowly called economics. The whole life of man must come under its purview. We have also seen that although individual happiness must be the goal of our endeavour this can be achieved only by guaranteeing the health and progress of society as an organic whole. From this point of view the opposition between equality and inequality must be overcome and harmony realised by adopting the principle "from each according to his capacity: to each according to his need". The society that must emerge as a result would be socialistic. There can be no compromise on this. Socialism, of course, does not mean dead uniformity either in organisation of production or lack of variety in the resulting consumption. The only practical socialism in instance, that of the Soviet Union, shows bewildering multiplicity and variety both in organisation of social life as well as in individual tastes.

The extant literature on planning does not emphasise these aspects. The Bombay Plan, which is the only comprehensive literature on the subject, hints at the economy to be realised but does not throw sufficient light on the various aspects. The government plans which are disjointed provincial affairs make no pretence at sketching the resulting social order. The provincial plans are indeed so unco-ordinated in design and so diminutive in

scale that they are hardly worthy of being placed as a challenging programme before the people. The plans require a finance of Rs. 1,000 crores only for 15 years whereas the minimum estimate we have made is for Rs. 13,000 crores. The Bombay plan in this respect is not unduly moderate.

Generally the literature on planning concerns itself with estimating the needs and examining the resources necessary for their realisation. This is more or less a statistical-mathematical problem on which there will be little difference of opinion. In other respects, which are the essentials for concretising the plan, the literature is silent. We have made it as concrete as possible. The details of the Bombay Plan—for no other plans are there in the field—have been commented upon in the course of our argument and no recapitulation is necessary.

Only one word need be said about the prospects of realising the plan. External and internal events seem to have quickened the pace of Indian politics and there is already a chance that national leaders would be in the government before long. If they can create a condition of freedom and enthusiasm, the plan, which is very modest, could be realised substantially.
